

DOCKET NO.: MSFT-1167
Application No.: 09/265,493
Office Action Dated: July 18, 2001

PATENT

REMARKS/ARGUMENTS

Claims 1 and 15 have been amended for purposes of clarification. No new matter has been entered. Claims 1-20 remain in the application.

In the Official Action, the Examiner asked Applicant to fill in the blanks in the specification with the proper U.S. Patent Application numbers. Applicant has entered the application numbers as requested.

In the Official Action, claims 1-20 were rejected under 35 U.S.C. §103(a) as allegedly being obvious over the teachings of Lathrop et al. (US 5,097,427) and Laferriere (US 6,226,005). Applicant respectfully disagrees and traverses the rejection.

The invention as defined in independent claims 1, 10, and 15 relates to a method, device, and system whereby texture values that vary over a primitive are applied to "selected" parameters of a pixel value but not to "unselected" parameters of a pixel value. The "unselected" parameters instead have constant values over the primitive. By selectively associating the textures with the pixel parameters, the invention provides substantial flexibility in rendering an image of a surface.

This feature of the invention is clearly set forth in the claims. For example, claim 1 recites, *inter alia*, the step of:

determining the pixel value by using the unselected parameters with constant values over the primitive and the selected parameters with varying texture values over the primitive, wherein the set of unselected parameters are not associated with texture values and the texture values are associated with the selected parameters.

These features are not believed to be shown or suggested by the cited prior art.

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Lathrop et al. disclose a conventional texture mapping system for a computer graphics display controller. In the Lathrop et al. texture mapping system, output texture values and illumination values are combined (Figure 1) to generate textured display color values for each pixel. As shown in Figure 5, a texture table 30 provides α , R, G, and B texture values that are blended with α , R, G, and B illumination values by blending module 32 to yield final bitmap values for writing into bitmap 6. Nowhere does Lathrop suggest that selected parameters of the pixel values are processed in this manner to be textured while other "unselected" parameters of the pixel values are not textured. The Examiner has acknowledged this shortcoming in the teachings of Lathrop et al. by noting that "Lathrop et al. does not specifically disclose a set of unselected parameters, which have constant values over the primitive." For such a teaching, the Examiner cites Laferriere.

Applicant submits that Laferriere does not provide the teachings missing from Lathrop et al. Rather than teaching the selective application of texture values to pixel parameters, Laferriere teaches the use of an illumination map that is "independent of the materials of polygons and/or the texture pictures used in texture mapping" (column 5, lines 18-20). The illumination maps are produced by determining the points of interest within the scene and determining an illumination value within the scene at these points of interest. Laferriere provides no details of how the textured picture is obtained. Rather, Laferriere receives the textured picture 40 as an input for combination with the illumination map of the invention. While Laferriere teaches that the shading may be constant (column 10, lines 24-33), Laferriere does not teach that certain pixel parameters are textured while others are constant. Absent such teachings, Laferriere is not believed to be particularly relevant to the claimed invention.


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In view of the shortcomings in the teachings of Lathrop et al. and Laferriere, even if the teachings of these patents could for some unspecified reason be combined by one skilled in the art, the claimed invention clearly would not result. Accordingly, the Examiner has failed to establish a *prima facie* case of obviousness and withdrawal of the rejection of claims 1-20 is respectfully solicited.

For the foregoing reasons, Applicant respectfully requests reconsideration and allowance of claims 1-20 and issuance of a Notice of Allowability.

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